

March 19, 2012

Mr. James Goncalo
Town Administrator
343 Highland Road
Tiverton, Rhode Island 02878

Dear James:

A **revised** actuarial valuation of the Town of Tiverton Police Department Pension Plan (Plan) was performed as of July 1, 2011. The purpose of the valuation is to:

- Compare the current value of Trust assets with accrued liabilities to assess the funded condition of the Pension Plan,
- Compute the Town's recommended contribution rate for the Fiscal Year ending June 30, 2011, and
- Provide information which may be required by the Town's auditors under GASB 25/27.

Revisions from the originally issued valuation report include three assumptions changes made in accordance with an actuarial experience study issued earlier this month. This valuation has been conducted in accordance with generally accepted actuarial principles and practices. The employee data and Plan asset data was provided by the plan administrator. This data has been reviewed for reasonableness, but no attempt has been made to audit such information. Employee data is snapshot data as of the valuation date.

The valuation was based on the provisions of the Plan as amended through the beginning of the Plan Year. Each actuarial assumption used in this valuation is reasonably related to the past experience of the Plan and represents reasonable expectations of future experience under the Plan. The Plan trustees with advice and approval of the actuary set the assumptions and methods for the valuation.

Neither the signing actuary nor the firm of McCloud & Nichols has a conflict of interest that would impair the objectivity of our work. This report is intended for use by the Plan trustees and should not be used for any purpose other than as stated herein. The undersigned meets the Qualification Standards for Prescribed Statements of Actuarial Opinion promulgated by the American Academy of Actuaries.

Respectfully submitted,



Traci M. Christian, EA, MAAA
Enrollment Number: 11-06694
McCloud & Nichols

Jeffrey A. Brown
JD, LLM, QPA, ERPA
Compensation Planning

***Town of Tiverton Police
Department Pension Plan***

Revised Actuarial Valuation as of July 1, 2011

Table of Contents

Section One: Valuation Summary

Valuation Summary	1
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Section Two: Actuarial Calculations – Funding

Unfunded Actuarial Accrued Liability.....	3
Computed Contribution Rates and Recommendation	3
Actuarial Balance Sheet.....	4
History of Contributions, Assets and Liabilities.....	4

Section Three: Retirement Plan Benefit Provisions

Benefit Provision Summary	6
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Section Four: Actuarial Assumptions and Methods

Actuarial Assumptions	7
Actuarial Methods.....	8

Section Five: Valuation Data

Asset Summary	9
Participant Summary	10

Section Six: Accounting Disclosures

Information for GASB Statements No. 25 and No. 27.....	13
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Section Seven: Glossary of Terms

Glossary of Terms.....	15
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Section One:

Valuation Summary

Liabilities and Funded Condition of Pension Plan

	<u>July 1, 2010</u>	<u>July 1, 2011</u>
Actuarial Accrued Liability	\$14,529,430	\$12,858,385
Actuarial Value of Assets	\$5,632,552	\$6,959,498
Funded Status of the Plan	38.8%	54.1%

Actuarial Value of Assets

The market value of assets including accrued contributions was used for the July 1, 2011 valuation.

Town's Computed Contribution Rate

The Town's recommended contribution rate was computed as a percentage of active member payroll and assumed to be payable mid-year.

	<u>July 1, 2010</u>	<u>July 1, 2011</u>
Normal Cost	26.6%	20.9%
Amortization of Unfunded Liability	40.5%	29.8%
Interest	4.0%	2.8%
Total Computed Contribution	71.1%	53.5%
Member portion	10.5%	10.5%
Town's Net Computed Contribution Rate	60.6%	43.0%

Pension Fund Experience

Overall experience during the year ended June 30, 2011, was more favorable than expected due to both investment gains as well as liability gains resulting from lower than expected salary increases. The plan experienced a \$1,034,013 asset gain. The total actuarial gain for the year ended June 30, 2011, was \$1,646,184.

Benefit Provision Changes

There were no changes to the Plan provisions.

Assumption and Method Changes

The actuarial assumptions were changed with this revised valuation in accordance with the actuarial experience study summarized in a report issued March 8, 2012. The following assumptions have been changed: The interest rate assumption changed from 7.0% to 7.5%. The salary scale changed from 5.0% to 4.0% and the COLA increase assumption was changed from 2.0% to 1.3%. Each of these changes was made in order to more closely estimate the Plan's future liabilities and to more accurately represent the Plan's funded status and recommended contribution.

Participant Data

	<u>July 1, 2010</u>	<u>July 1, 2011</u>
Active Members	26	27
Active Member Payroll	\$1,762,244	\$1,587,328
Average Member Payroll	67,779	58,790
Retirees and Beneficiaries	27	27
Annual Pensions	\$683,215	\$704,172

Financial Data

Market Value of Assets	\$5,632,552	\$6,959,498
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Conclusion and Comments

The unfunded accrued liabilities are amortized over 25 years as a level percent of payroll. The existence of this plan is dependent on strict adherence to funding the actuarial recommended contribution each year. Lower contributions could put the plan at risk of bankruptcy in the very near term.



Section Two:

***Actuarial Calculations –
Funding***

Unfunded Actuarial Accrued Liability

	<u>July 1, 2010</u>	<u>July 1, 2011</u>
Actuarial Accrued Liability	\$14,529,430	\$12,858,385
Actuarial Value of Assets	<u>\$5,632,552</u>	<u>\$6,959,498</u>
Unfunded Actuarial Accrued liability	\$8,896,878	\$5,898,887
Funded Status of the Plan	38.8%	54.1%

Computed Contribution Rates

The contribution rates shown below are expressed as percents of active member payroll (under Normal Retirement Age.).

The normal cost can be viewed as the long-term ongoing cost of the Pension Plan.

Accrued liabilities exceeded accrued assets as of July 1, 2011. The excess was amortized as a level percent of payroll over 25 years. This amortization charge was applied to the recommended contribution.

Contribution Recommendation for Fiscal Year Beginning July 1, 2011:

	<u>Dollar Amount</u>	<u>As a Percent Of Current Payroll</u>
Total Normal Cost	\$331,066	20.9%
Amortization of Unfunded Liability	473,072	29.8%
Interest to Middle of Fiscal Year	44,623	2.8%
Total Computed Contribution	848,761	53.5%
Expected Member portion	(166,669)	(10.5)%
Town's Net Computed Contribution Rate	\$682,092	43.0%

Actuarial Balance Sheet

The Actuarial Balance Sheet is intended to give long-term perspective on the status of the Plan. As assets continue to recover and the recommended contributions continue to be made, the projected assets and liabilities will balance out.

	<u>July 1, 2011</u>
Assets	
Actuarial Value of Assets	\$6,959,498
Present Value of Future Employee Contrib.	1,519,694
Present Value of Future Employer Contrib.	9,261,827
 Total	 \$17,741,019
Liabilities	
Present Value of Future Benefits – Actives	\$7,691,019
Retirees	8,272,294
 Total	 \$15,963,313
 Surplus/(Deficit)	 \$1,777,706
	11.1%

Recommended Town Contributions

Year Ended June 30	Computed Contribution	% of Payroll Contribution Rates
2008	597,226	44.6
2009	711,225	47.0
2010	1,023,362	59.6
2011	1,067,884	60.6
2012	682,092	43.0

History of Assets and Accrued Liabilities

Valuation Date July 1	Valuation Assets	Actuarial Accrued Liabilities	Funded Ratio	Unfunded Actuarial Accrued Liabilities
2005	5,490,958	11,006,944	49.9	5,515,986
2006	6,093,822	10,704,892	56.9	4,611,070
2007	7,182,410	11,322,225	63.4	4,139,815
2008	6,925,601	12,155,294	57.0	5,229,693
2009	5,732,961	14,242,648	40.3	8,509,687
2010	5,632,552	14,529,430	38.8	8,896,878
2011	6,959,498	12,858,385	54.1	5,898,887

Section Three:

***Retirement Plan
Benefit Provisions***

Benefit Provision Summary

Effective Date

July 1, 1978

Eligibility

All employees are eligible after age 21 and 12 months of service.

Monthly Compensation

Compensation includes regular pay as well as Bonus and Longevity pay and State Education Incentive Compensation.

Credited Service

Service measured from the date of employment.

Normal Retirement Benefit

For retirements on or after June 1, 2000, a monthly benefit equal to 2.5% of Average Monthly Compensation multiplied by Credited Service for the first 20 years of Service, Plus 2% of Average Monthly Compensation multiplied by Credited Service in excess of 20 years subject to a maximum benefit of 75% of Average Compensation.

Normal Form

The Normal Form of payment is a Life Annuity.

Normal Retirement Date

A Member may retire on the earlier of his 55th birthday or upon completion of 20 years of Credited Service.

Disability Retirement

If the disability was duty-related, the benefit is 66 2/3% of Final Compensation. The non-duty-related Disability Benefit is 50% of Final Compensation.

Pre-Retirement Death Benefit

The Beneficiary of a Participant who dies shall receive a benefit of \$400 for each year of service, subject to a minimum of \$2000 and a maximum of \$8,000. After retirement, the benefit is reduced by 25% per year but not less than \$2,000.

Vesting

100% after 10 years.

Pre-Retirement Death Benefit

50% of Accrued Benefit at time of death payable to spouse until death or remarriage with additional benefits payable to surviving children under age 18 if no spouse survives.

Employee Contributions

10% of compensation

Post-Retirement COLA

Base Benefit increased 1% of the compensation each year for the position from which they retired. The increases are cumulative, not compounded.



Section Four:

***Actuarial Assumptions
And Methods***

Actuarial Assumptions

Economic Assumptions

- | | |
|-----------------------|---|
| (i) Interest Rate | 7.5% (net of administration expenses paid by the Trust) |
| (ii) Salary Increases | 3.5% |

Demographic Assumptions

- | | |
|-----------------|--|
| (i) Mortality | RP 2000 Mortality Table for males and females. |
| (ii) Disability | Sample disability rates are as follows: |

Annual Rates of Disability		
Age	Males	Females
25	.03%	.05%
30	.04	.06
40	.07	.10
50	.18	.26
55	.36	.49
60	.90	1.21

- | | |
|-----------------------|---|
| (iii) Turnover | None Assumed |
| (iv) Retirement | The rate is 50% at 20 years of Service. If a Member has at least 20 Years of service, the rate is 10% through age 55 and 100% for age 55 and older. |
| (v) Marital Status | 80% of participants are assumed to be married with males 3 years older than their female spouses. |
| (vi) COLA adjustments | 1.3% increase each year. |
| (vii) Asset Value | Assets are valued at market plus receivables. |

Actuarial Method Used for the Valuation

Normal Cost

Normal cost and the allocation of actuarial present values between service rendered before and after the valuation date were determined using an individual entry age actuarial cost method having the following characteristics:

- ❖ The annual normal costs for each individual active member, payable from date of hire to date of retirement, are sufficient to accumulate the value of the member's benefit at the time of retirement;
- ❖ Each annual normal cost is a constant percentage of the member's year-by-year projected covered pay.

Financing of Unfunded Actuarial Accrued Liability

The excess of actuarial accrued liabilities over accrued assets was amortized as a level percent-of-payroll and applied as a charge to the computed normal cost.

Active member payroll was assumed to increase at the salary increase rate for the purpose of determining the level percent-of-payroll full funding credit.

Uncertainty and risks with respect to the results, assumptions, methods, etc.

The results presented in this report are based upon actuarial assumptions and methods, such as expected salary increases and expected plan asset returns, that represent the expected experience for the Plan. If the actual experience of the Plan is different from what is assumed in the valuation, this can create volatility in the results including but not limited to the funded status of the Plan and the contribution recommendations.



Section Five:
Valuation Data

Summary of Asset Information Submitted for the Valuation

Statement of Assets

As of July 1, 2011, the net market value of Pension Plan assets was reported to be \$6,959,498.

Market Value of Assets as of July 1, 2010	\$5,632,552
a. Revenues	
(i) Member Contributions	\$140,153
(ii) Employer Contributions	452,407
(iii) Investment Income (Net of investment fees)	1,424,865
b. Expenses	
(i) Benefits Paid	\$690,479
Market Value of Assets as of July 1, 2011	\$6,959,498

Actuarial Value of Assets

The market value of assets was used for the July 1, 2011 valuation.

Participant Summary

Retirees Included in the Valuation

There were 27 retirees included in the valuation, with annual pensions totaling \$704,172. The breakdown by age division is as follows:

Retirees

Age	Number	Average Annual Pensions
Under 40		
40-44	2	27,846
45-49	5	27,363
50-54	2	37,302
55-59	2	21,406
60-64	5	22,169
65-69	4	34,776
70-74	1	20,020
75-79	3	22,066
Over 80	3	19,360
Total	27	\$26,080

Active Members – Age and Service Distribution

Age	Service							Total
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	Over 30	
20 - 24	2							2
25 - 29	3							3
30 - 34	2	2	1					5
35 - 39		2	3					5
40 - 44			2	4	1			7
45 - 49		1		1	1			3
50 - 54			1					1
55 - 59								
60 - 64		1						1
65+	—	—	—	—	—	—	—	—
Total	7	6	7	5	2			27

Total Active Participant Information

	2009	2010	2011
Active Members	24	26	27
Valuation Payroll	1,716,156	1,762,244	1,587,328
Average Compensation	71,507	67,779	58,790
Average Age (yrs.)	38.5	37.4	38.2
Average Service (yrs.)	10.1	9.6	10.2

Reconciliation With Prior Year

	Actives	Retirees
July 1, 2010 Participants	26	27
Corrections		
New Participants	1	
Returned to Active		
Retirements		
Deaths		
New Beneficiaries		
Benefits Expire		
Terminations		
- Vested		
- Non-Vested		
- Lump-Sums		
July 1, 2011 Participants	27	27



Section Six:

Accounting Disclosures

GASB Statement No. 25 Supplementary Information

The information presented in the required supplementary schedules was determined as part of the actuarial valuations at the dates indicated. Additional information as of the latest actuarial valuation follows:

Valuation Date:	July 1, 2011
Actuarial Cost Method:	Entry Age Normal
Amortization method:	Level percent of payroll, open
Remaining amortization period:	25 years
Asset valuation method:	Market value
Actuarial assumptions:	
Investment rate of return	7.5%
Projected salary increases	4.0%

Membership data is detailed in Section Five of this report.

Analysis of Funding Progress

Valuation Date	(1) Valuation Value of Assets	(2) Actuarial Accrued Liability	(3) Percent Funded (1)/(2)	(4) Unfunded AAL (2)-(1)	(5) Annual Covered Payroll	(6) UAAL As a % Of Covered Payroll
2005	5.491	11.007	49.9	5.516	1.149	479.9
2006	6.094	10.705	56.9	4.611	1.275	361.5
2007	7.182	11.322	63.4	4.140	1.338	309.4
2008	6.926	12.155	57.0	5.230	1.512	345.9
2009	5.733	14.243	40.3	8.510	1.716	495.9
2010	5.633	14.529	38.8	8.897	1.762	504.9
2011	6.959	12.858	54.1	5.899	1.587	371.6%

Dollar amounts in millions.

**Required Supplementary Information
Schedule of Employer Contributions**

Year Ended June 30	Annual Required Contribution	Percent Contributed
2006	648,059	100%
2007	647,343	92%
2008	597,226	100%
2009	711,225	100%
2010	1,023,362	0%
2011	1,067,884	42%
2012	682,092	

* Actual required contribution dollar amount will be based on the recommended contribution rate and the actual pensionable payroll for the period.

GASB Statement No. 27 Supplementary Information

	(1)	(2)	(3)	(4)	(5) (2)+(3)- (4)	(6)	(1)+(5)- (6)
Year ending 6/30	NPO BOY	Annual Required Contribution	Interest on NPO	Adj to ARC	Annual Pension Cost	Actual Contribution	NPO EOY
2005	-	631,676	-	-	631,676	494,715	136,961
2006	136,961	648,059	9,587	8,144	649,502	648,059	138,404
2007	138,404	647,343	9,688	8,230	648,801	597,225	189,980
2008	189,980	597,226	13,299	11,297	599,228	597,226	191,982
2009	191,982	711,225	13,439	11,416	713,248	711,225	194,005
2010	194,005	1,023,362	13,580	11,536	1,025,406	0	1,219,411
2011	1,219,411	1,067,884	85,359	72,510	1,080,733	452,407	1,847,737
2012	1,847,737	682,092					



Section Seven:

Glossary of Terms

Glossary of Terms

Accrued Benefit

The benefit earned by a participant payable in the form of a monthly benefit commencing at normal retirement age.

Actuarial Accrued Liability

The actuarial present value of benefits earned as of the valuation date.

Actuarial Gain or Loss

The difference between the plan's actual experience and expected experience based on the actuarial assumptions used in the valuation.

Actuarial Value of Assets

The value of assets as determined by the actuary for the purpose of the valuation. This may or may not include a method of smoothing investment gains and losses over time.

Amortization

The spreading of liabilities or costs over a period of years. A plan's unfunded actuarial accrued liability is amortized over a period of years.

Entry Age Normal Actuarial Cost Method

An actuarial method for determining the annual normal cost and the actuarial accrued liability of a pension plan. Under this method, the annual normal cost is the level amount that would have to be contributed each year from the time each employee entered employment so that his pension will be fully funded by his assumed retirement age.

Normal Cost

That portion of the actuarial present value of plan benefits and expenses allocated to the valuation year.

Present Value

The value of a benefit payment or series of benefit payments determined as of the valuation date by the application of a particular set of actuarial assumptions. It is the single sum which reflects the time value of money (through discounts for investment yield) and the probabilities of payment (taking into account death, disability, withdrawal and age at retirement).

Unfunded Actuarial Accrued Liability

The excess of the actuarial accrued liability over the actuarial value of assets.

Vested Benefit

A benefit that is not forfeited if the participant leaves employment.